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HOMEMAKERS' USE OF AND OPINIONS ABOUT SELECTED
FRUITS AND FRUIT PRODUCTS

A Preliminary Summary Report

Standards and Research Division
Statistical Reporting Service
U. S. DEPARTMENT OF AGRICULTURE

PREFACE

This study is one of a group concerning consumer preferences for farm products conducted by the Special Surveys Branch, Standards and Research Division. It is part of a broad program which will assist the noncitrus fruit industries to strengthen their market position and at the same time provide consumers with an opportunity to evaluate the products available to them. This report presents information on American homemakers' use of and attitudes toward selected fresh and processed fruits.

The study was conducted under the general direction of Trienah Meyers and Margaret Weidenhamer, and was planned by Elizabeth Watters. In addition to subject-matter specialists in the Department, industry advisors gave technical advice during the development of the study. Among them were United Fresh Fruit and Vegetable Association, National Peach Council, International Apple Association, National Apple Institute, and the California Grape and Tree Fruit League. The data were collected by Crossley, S-D Surveys, Inc., New York, N.Y., under contract with the U.S. Department of Agriculture.

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HOMEMAKERS' USE OF AND OPINIONS ABOUT SELECTED FRUITS AND FRUIT PRODUCTS

A Preliminary Summary Report

By L. Yvonne Clayton, Study Director
Standards and Research Division
Statistical Reporting Service

INTRODUCTION

Per capita consumption of fresh noncitrus fruits has declined sharply in the past 20 years. During this same period, consumption of processed noncitrus fruit has increased considerably. To understand its market better, the industry needs up-to-date information on how each product appeals to the consumer and to what aspects the consumer reacts negatively. Such information is an important aid in maintaining or increasing markets.

This preliminary report summarizes some of the major findings from a survey of homemakers' use and opinions of selected fresh and canned fruits, fruit juices, prunes, raisins, and applesauce with major emphasis on apples. Since this publication is being released before final review and analysis, data are subject to possible revision. The final report will contain more detailed information.

Data are based on 2,454 personal interviews conducted between mid-November 1963 and mid-January 1964 with homemakers throughout the Nation. The homemaker is defined as the person with primary responsibility for purchasing and preparing food for the household. An area probability sample representative of all households in the United States was used.

NONCITRUS FRUITS

Use of selected noncitrus products.--Nearly every household in the United States used some fresh and canned fruit in the 12 months preceding the study. Homemakers were given a list of fruits and fruit products and were asked which they had purchased in the past 12 months. Nearly all homemakers indicated that they had purchased at least one; a large majority said they had used fresh bananas, apples, oranges (included to permit comparisons), grapes, peaches, and canned pineapple, peaches, and fruit cocktail. The least usage was cited for fresh pineapples, apricots, and canned sour cherries, as indicated below.

Homemakers who had purchased:

<u>Fresh fruits</u>	<u>Percent</u>
Bananas	96
Apples	94
Oranges	90
Grapes	89
Peaches	86
Pears	68
Plums or prunes	66
Cherries (sweet)	48
Nectarines	38
Pineapple	29
Apricots	22
<u>Canned fruits</u>	
Pineapple	86
Fruit cocktail	86
Peaches	83
Pears	65
Apricots	43
Cherries (sweet)	36
Apples	34
Plums or prunes	32
Cherries (sour)	28

Nonpurchasers of the different fresh fruits were asked why they had not bought them in the past 12 months. The highest proportion of nonpurchasers of apples, grapes, peaches, pears, and plums or fresh prunes said, "Have own trees; friends or relatives supply." Health reasons were cited more frequently by nonpurchasers of bananas and oranges, while apricots and nectarines were not bought because they were either unavailable or unknown. Nonpurchasers of cherries and pineapples believed they were too expensive or hard to prepare, respectively (table 2).

Changes in amounts purchased.--Homemakers were questioned on their impressions of changes in amounts they had purchased in the past 12 months of a few selected fruits, as compared with 5 years before. Eighty-five to 90 percent of apple, banana, grape, and peach purchasers indicated the same or increased usage of these fruits. Those who reported less usage were more than offset by those who indicated that they were purchasing more (table 1). Major reasons given for using more were "family size has increased," or "the children are older"; the majority of those who were using less said, "my family is smaller now."

All homemakers who had purchased fresh fruit were asked what they thought a store manager could do to get their customers to buy more fruit. Almost half said they should display higher quality fruit, and about 1 in 4 felt their displays could be more attractive or that prices should be lower.

Packaging.--With the advent of the supermarket and mass production methods of supplying food came emphasis on the care and packaging of produce in the markets. However, it seems that most homemakers still prefer to purchase all their fresh fruits loose. The homemakers feel that in buying it loose they can select the number and size they want and can see that none are bruised or spoiled. Fewer than 1 in 10 saw no advantages to buying fruit loose, while nearly 4 in 10 homemakers felt that way about packaged fruit. On the other hand, many respondents mentioned some advantages of packaging, notably that it is time-saving and sanitary (table 3). Among the homemakers who bought fresh fruit:

- 67 percent preferred all fruit loose
- 9 percent preferred all fruit packaged
- 14 percent preferred some one way, some the other
- 9 percent had no preference

Attitudes toward noncitrus fruits.--In this study, several approaches were used to ascertain both positive and negative attitudes toward selected noncitrus fruits. Open-end questions and checklists were used frequently. However, homemakers were given more opportunity to express their dislikes or negative attitudes than their positive ones. Nevertheless, indications of the importance of certain positive factors were obtained.

While homemakers generally selected the same positive statements for all fruits, the degree of frequency varied according to each fruit's specialized appeal to the consumer. For example, "good for health" and "good for snacks" were selected most often for most of the fruits. However, about 90 percent felt these statements were "especially true" for apples, compared with 66 and 51 percent, respectively, for plums or fresh prunes. Negative statements, on the other hand, were selected less frequently and generally with wide variations in degree of frequency. "Spoils easily," for example, was chosen by 56 percent of the respondents for bananas; in contrast, this response was mentioned by fewer than 10 percent for apples (table 4).

Apples

Use of apples.--More than 9 in 10 homemakers in the United States had purchased fresh apples in the past 12 months. According to their own estimates, the majority of them used the fruit at least once a week. Almost all indicated they had used apples raw in the past year; over half preferred "Delicious" apples for this use. About 4 out of 5 indicated they had used apples for cooking and baking, but no one variety dominated the preferences mentioned.

Desired qualities in apples.--In purchasing fresh apples, certain qualities more than others seem to influence the homemakers. Firm juicy apples without blemishes and of medium size were the most desirable whether the planned end use was for eating raw, cooking, or baking. When selecting apples for eating raw, appearance was of more concern to the homemakers, with over one-fourth of them citing "shiny" as a desirable quality. On the other hand, nearly two-fifths of the homemakers stated that cooking apples should be tart (table 5). When questioned as to whether they had any difficulty in finding the type of apple they preferred or whether they were disappointed in their apple purchases

of the past year, a large majority reported that they had experienced neither difficulty nor disappointment.

Dried Prunes

Use of prunes.--About 2 homemakers in 5 said they had not purchased dried prunes in the preceding 12 months; among those who had, the majority reported infrequent use. Of the 59 percent who had purchased dried prunes:

- 14 percent said they used them once a week or more
- 18 percent used them 2-3 times a month
- 23 percent used them once a month
- 44 percent used them less than once a month

Reasons for use and nonuse of prunes.--Homemakers gave a variety of reasons for using dried prunes in the past 12 months. Health and taste reasons were widely mentioned as well as the use of prunes in recipes and as a meal complement. Among prune users:

- 44 percent considered prunes a laxative
- 21 percent felt they were healthy, nutritious, and good for children
- 19 percent used them to make stewed prunes
- 16 percent liked their taste or flavor
- 16 percent used them as a breakfast fruit

When nonpurchasers were asked their reasons, about two-fifths specified a dislike of prunes in general or, specifically, of their taste. One in 5 stated they preferred other fruits or forms of prunes. Only one other reason, "difficult to prepare," was given by more than 10 percent of the nonpurchasers. (This reason was cited by 11 percent.)

Raisins

Use of raisins.--The great majority of households in the United States--83 percent--used raisins in the year preceding the survey, and 2 out of 5 families used them twice a month or more. Among the homemakers who used raisins in the past year:

- 20 percent said they used them once a week or more
- 20 percent said they used them 2 to 3 times a month
- 23 percent said they used them about once a month
- 37 percent said they used them less than once a month

There was little regional difference in the proportions who said they used raisins; the range was from 79 percent in the Northeast to 86 percent in the West. Homemakers were asked, "About how often have you used raisins in the last year?" Most frequent use was indicated in the West, where 51 percent said they served raisins at least twice a month or more and only 27 percent said less than once a month.

Applesauce

Use of applesauce.--Eighty-five percent of the homemakers reported using applesauce. They used either homemade, processed, or both (table 6). When the 7 homemakers in 10 who had used canned applesauce in the past year were questioned as to their preference:

45 percent preferred homemade
36 percent preferred canned
19 percent had no preference

Applesauce preferences.--All respondents were asked, "How would you describe the way good applesauce should look and taste?" Homemakers who did not mention color or consistency in answer to this were asked specifically about their opinions on these two factors. A yellow, sweet tasting, smooth applesauce of medium thickness was preferred by most (table 7). There was some regional difference in preference for taste and consistency. Homemakers in the North Central region more frequently (34 percent) described a "good applesauce" as one having a sweet taste than did those in the West (19 percent). In the South, fewer (4 percent) homemakers wanted applesauce to have cinnamon in it.

When citing their consistency preferences, homemakers in the Northeast put more emphasis on a "smooth" applesauce than did those in the other regions.

Color preference appeared to be more related to region than did the other factors. However, except for the Northeast, where about one-fourth of the homemakers wanted "pink applesauce," the majority in each region preferred a yellow or light applesauce (table 7).

The two most popular uses of processed applesauce were as a dessert or as a side dish with meat. Among homemakers who purchased processed applesauce:

62 percent used it as a side dish
42 percent as a dessert
12 percent in recipes for cakes, cookies, etc.
8 percent as a garnish on meat
5 percent as a breakfast food
5 percent with pancakes

Table 1.--Homemakers who had used fresh fruit, "Would you say the amount (of fruit) you have bought in the past 12 months is more, less, or about the same as the amount bought, say, 5 years ago?"

Fruit	Amount used			Respondents
	More	Less	Same	
	Percent	Percent	Percent	Number
Apples -----	41	14	45	2,307
Bananas -----	36	10	54	2,351
Grapes -----	30	12	58	2,179
Peaches -----	28	15	57	2,104

Table 2.--Homemakers who said they did not purchase certain fresh fruit in the last 12 months: Summary of percentage distribution of reasons for nonpurchase given by 5 percent or more

Reason	Apples	Apricots	Bananas	Cherries	Grapes	Nectarines	Peaches	Pears	Pine-apples	Plums or fresh prunes
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Have own trees; friends or relatives supply --	62	5	---	11	27	---	13	32	---	23
Health reasons (general) -----	15	---	42	---	15	---	21	11	7	7
Just don't like it (general) -----	6	15	11	11	11	9	6	6	6	15
Prefer other fruits --	5	8	11	9	12	12	9	7	---	10
Texture -----	5	---	---	---	---	---	---	---	8	---
Availability -----	---	22	---	12	---	16	---	6	7	7
Dislike taste (general) -----	---	10	8	---	---	6	---	---	---	6
Too expensive -----	---	9	8	22	14	10	17	13	8	9
Tart, too sour, bitter -----	---	7	---	6	---	---	---	---	8	10
Other taste reasons --	---	6	---	---	---	---	---	---	---	---
Prefer canned, dried forms -----	---	6	---	10	---	---	13	5	13	5
Not familiar with fruit -----	---	5	---	---	---	33	---	---	---	---
Ripening and spoilage problems -----	---	---	8	---	---	---	---	---	---	---
Hard to prepare -----	---	---	---	5	---	---	---	---	42	---
Messy to eat -----	---	---	---	---	---	6	---	---	---	---
Dislike skin and fuzz -----	---	---	---	---	---	---	---	6	---	---
Canned, dried tastes better -----	---	---	---	---	---	---	---	---	5	---
Number of respondents -----	108	1,886	64	1,247	236	1,471	204	311	738	802

Table 3.--Homemakers who had used fresh fruit: Summary of percentage distribution of advantages of purchasing fresh fruit loose and packaged given by 10 percent or more

Replies	Loose	Packaged
	<u>Percent</u> ^{1/}	<u>Percent</u>
No spoiled, bruised fruit -----	54	---
Can get number wanted -----	31	---
Can choose/select ones wanted -----	29	---
Can get size wanted -----	13	---
Time saving -----	---	28
Not handled -----	---	14
More sanitary -----	---	10
No advantages -----	4	36
Number of respondents -----	2,415	2,415

^{1/} Percentages add to more than 100 because of multiple answers.

Table 4.--Statements users of fresh fruit feel are, ". . . especially true about (fruit)": Summary of percentage distribution of statements given by 10 percent or more ^{1/}

Statements	Fresh fruit					
	Apples	Bananas	Grapes	Peaches	Pears	Plums or fresh prunes
	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
Positive:						
Good for health (general) -----	93	75	70	73	68	66
Good for snacks -----	91	79	64	58	61	51
Can be used many ways -----	86	63	26	62	30	20
Reasonably priced when in season -----	69	56	48	53	34	35
Can buy ready to use/need no further ripening -----	67	48	59	41	34	38
Good laxative -----	43	12	22	23	22	44
Low in calories -----	38	15	27	22	24	20
Negative:						
Often bruised or blemished ----	18	42	20	45	26	15
Spoils easily -----	---	56	26	44	25	20
Hard to digest -----	---	11	---	---	---	---
Messy to eat -----	---	---	11	43	15	21
Difficult to tell when ripe ---	---	---	---	18	26	16
Family does not like them ----	---	---	---	---	13	15
Hard to find good quality even in season -----	---	---	---	10	10	---
Number of respondents -----	2,415	2,415	2,415	2,415	2,415	2,415

^{1/} Percentages add to more than 100 because of multiple answers.

Table 5.--Homemakers who used fresh apples in the past 12 months: Summary of percentage distribution of qualities looked for in choosing apples for eating raw/cooking or baking, given by 10 percent or more 1/

Quality	Used for--	
	Eating raw	Cooking and baking
	<u>Percent</u>	<u>Percent</u>
Consistency:		
Juicy -----	87	57
Firm but not hard -----	62	39
Hard -----	23	23
Condition of skin:		
No blemishes or spots ----	70	46
No bruises -----	61	41
Smooth skin -----	32	16
Shiny -----	26	---
Color:		
Deep red -----	43	16
Bright red -----	41	19
Yellow -----	18	---
Part red, part green ----	13	21
Green -----	---	19
Size:		
Medium size -----	65	42
Uniform size -----	13	---
Large size -----	13	16
Taste:		
Sweet -----	50	17
Tart -----	21	36
Other:		
Variety or kind of apple -----	27	22
Does not use this way -----	1	16
Number of respondents -----	2,307	2,307

1/ Percentages add to more than 100 because of multiple answers.

Table 6.--Homemakers who used homemade and canned applesauce in the past 12 months, United States and by region

Region	Used homemade only	Bought canned only	Used both	Did not use	Total respondents
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Number</u>
U. S. total -----	14	35	36	15	2,454
Northeast -----	14	31	48	7	637
North Central ----	18	28	44	10	716
South -----	11	41	23	25	742
West -----	13	43	29	15	359

Table 7.--"How would you describe the way good applesauce should look and taste?" Summary of percentage distribution of description of good applesauce given by 10 percent or more of the total respondents, United States and by region 1/

Replies	U. S. total	Region			
		Northeast	North Central	South	West
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Taste:					
Sweet -----	27	27	34	26	19
Not too sweet/ not too tart --	23	28	23	22	20
Tart -----	13	13	14	12	14
With (a little) cinnamon -----	10	15	13	4	9
Color:					
Yellow -----	35	34	36	30	42
Light -----	23	14	24	30	22
Pink -----	15	26	15	7	9
Tan/brownish ---	12	17	10	9	12
Clear -----	12	4	14	17	9
Consistency:					
Medium thick ---	49	51	48	49	50
Smooth -----	35	44	34	30	29
Thick, heavy ---	24	21	26	26	26
Number of respondents -----	2,454	637	716	742	359

1/ Percentages add to more than 100 because of multiple answers.

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